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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/591,936	06/27/2007	John W. Oder	100325.0206US1	4526
24392 7590 01/06/2010 FISH & ASSOCIATES, PC ROBERT D. FISH 2603 Main Street Suite 1000 Irvine, CA 92614-6232				
EXAMINER				
BHAT, NINA NMN				
ART UNIT		PAPER NUMBER		
1797				
MAIL DATE		DELIVERY MODE		
01/06/2010		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/591,936

**Applicant(s)**

ODER ET AL.

**Examiner**

N. Bhat

**Art Unit**

1797

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 September 2006.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-17 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 06 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO/GS/US)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

#### DETAILED ACTION

1. Applicant is requested to include the foreign priority and/or 371 status of the application on Page 1, line 1 of the specification.
2. The abstract of the disclosure is objected to because applicant has used the abstract from the corresponding WIPO document which includes extraneous information regarding classification and the drawing. Applicant is requested to re-draft the abstract in a single paragraph on a single page following the claims which contains no legal phraseology directed to the claimed invention. Correction is required. See MPEP § 608.01(b).
3. Two sets of claims have been filed having the dates of 9-6-2006. The claims being acted upon for examination is the claim set entitled "Amended Claims [received by the International Bureau on 28 February 2005]", Article 19 Amendment.
4. Claim 2 and 3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear what is meant by the phrase "comprising installing both the coke drum and the valve within two month of each other" with respect to the steps of "initially positing the body and valve" and "raising the valve to allow mating " the process can take two months? In other words the coke drums are down, off-line, or unavailable for use for two months? Applicant presumably means "installing both the coke drum and valve within two months of each other. It is unclear how this ties into the method of claim 1, and/or further limits claim 1. The time or duration or when the valve and coke drum are installed with respect to the method of

installing a deheader valve on a coke drum lacks antecedence and further it is unclear to the examiner what applicant is claiming or "protecting" by this method step.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lah, US Patent 6,565,714 in combination with Antalffy et al., US Patent 5,098,524.

Lah teaches the invention substantially as claimed. Lah teaches a coke drum deheading system which includes a deheader valve (10) which is removably coupled to the coke drum (18) and designed to de-head the coke drum. The deheader valve includes a main body having an orifice dimensioned to align and couple to the orifice or outlet of the coke drum. The coke drum deheading system includes a deheader valve (12) having a body (46) and upper and lower seats, 34 and 38 respectively attached there to. The body (46) includes a flange portion (42) that is of the same dimensions aligned and corresponding to the coke drum (18). The flange portion is part of the

"head" of the coke drum and the de-header valve (12) can be coupled to the flanged portion or directly to the body of the coke drum. Shown in Figures 2 and 3 are actual (62) which drives ram (114) which provided sliding bi-direction movement to the blind seat assembly to open and close the de-header valve. The actuator (62) is a hydraulic pump. Lah teaches that in order to move the blind (106) the actuator (62) must be designed capable to overcome the forces to slide the blind back and forth to an open and closed position. [Note Column 8, lines 42-68]

However, Lah does not teach the deheading valve while being installed is lifted or raised with a device other than a chain fall.

Antalfy et al. teach that the flange of the coke drum will de-heading is raised and lowered during the deheading process by using a hydraulic actuating device. Antalfy teach that the coke drums include a frustoconical bottom sections (11, 12) which terminates at the drum outlets (13, 14). The actuator system on the coke drum includes hydraulic cylinders which are attached to the drumhead (25) by universal joints (30 and 31). The actuating means or hydraulic cylinders raise and lower the drum head from the drum body. Antalfy et al. further teach that other actuating means or non-hydraulic actuating means such as a gear drive and the like could be employed as an actuating system for raising and lowering the drumhead. [Note Column 3, lines 37-60, Column 4, lines 3-14, and Column 4, lines 50-59]

It would have been obvious from the teachings of Lah and Antalfy et al. to provide method of installing a deheader valve on a coke drum. The deheader valve described by Lah is constructed and arranged and dimensioned to fit to the bottom of

the coke drum. Admittedly, Lah does not require and in fact teaches that the coke drum de-heading system does not require the "head" of the coke drum to be removed each time the drum is to be decoked. This teaching does not teach away from what applicant is claiming because applicant is claiming a method of installing the deheader valve onto the coke drum and not about deheading the coke drum itself thus permitting Lah to be used in the rejection. Lah teaches that the deheading valve can be attached to the flange of the drum or drum head. Antalfy et al. teach how to remove the drum head by using hydraulic actuators which raise and lower the head from the body of the coke drum. Antalfy et al. further teach that the other non-hydraulic actuators for moving i.e., raising and lowering the drum head or valve has been contemplated. Therefore it would have been obvious to install a deheading valve such as taught by Lah using the actuating means described by Antalfy et al. which raises and lowers the head using a hydraulic actuating device as means for installing a deheader valve onto a coke drum. It is the position taken by the examiner that given the teachings of Lah and Antalfy et al. that the deheading valve can be fit onto an existing or new coke drum by positioning the body and valve assembly "head" onto the flange of the coke drum by using the lifting actuating system which has been known and used for deheading thus rendering applicant's invention as a whole obvious to one having ordinary skill in the art at the time the invention was made.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Malsbury et al. teach coking vessel un-heading device and support structure. Antalfy et al. '266 teach low headroom coke drum unheading device.

Lah '848 teach a deheader valve installation system which includes a fixed support structure which is located proximate to the coke drum. A carriage structure is in communication with the deheading assembly and support assembly and the deheader valve is raised and lowered allowing the carriage and closure to move in a vertical manner relative to the fixed support structure. Lah'848 teach that the elevation adjustment assembly and horizontal transfer assembly work in harmony together to provide both approximate and precision vector position of the closure to enable parallel and concentric alignment with the coke drum. Lah'848 is not prior art against applicant's invention but is the closest prior art to applicant's invention. Applicant is invited to review this patent for interference purposes. Schonfeld et al. teach a coke drum bottom head removal system. Malik teach containment system for coke drums. Meher-Homji teach a coke drum top deheader which includes a lift assembly attached to the frame for engaging the thrust collar to selectively raise and lower the bridge relative to the flange.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to N. Bhat whose telephone number is 571-272-1397. The examiner can normally be reached on Monday-Friday, 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/N. Bhat/  
Primary Examiner, Art Unit 1797